



SUBJECT: BIOLOGY

CHAPTER: 8

CHAPTER NAME: HOW DO ORGANISMS REPRODUCE?

PERIOD-3

CHANGING YOUR TOMORROW

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The sexual reproduction in flowering plant involves

- Pollination
- Fertilisation

Pollination

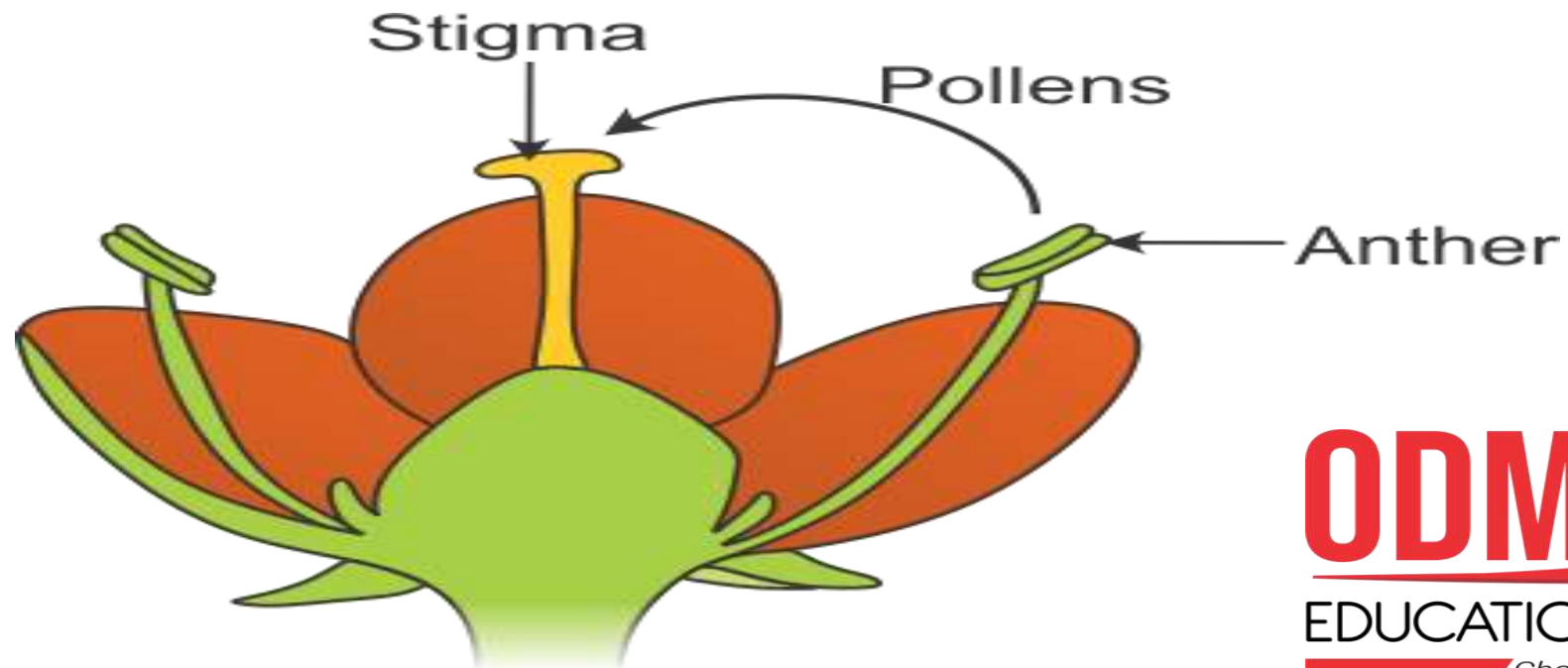
- Transfer of pollen grains from the anther to the stigma is called pollination. Pollen grains are transferred mainly by wind, water and insects. They are called as pollinating agents. Pollination is the first and important event in the development of the fruit and seed. Pollination is followed by fertilization.

Types of pollination

- Pollination is of two types. They are
- 1. Self pollination
- 2. Cross pollination

Self pollination

- Self pollination is also known as autogamy. The transfer of pollen grains from the anther of a flower to the stigma of the same flower or another flower of the same plant is known as self pollination.



Cross pollination

- The transfer of pollen grains of a flower to the stigma of another flower of a different plant of the same species is called cross pollination or allogamy.



AGENTS OF CROSS POLLINATION

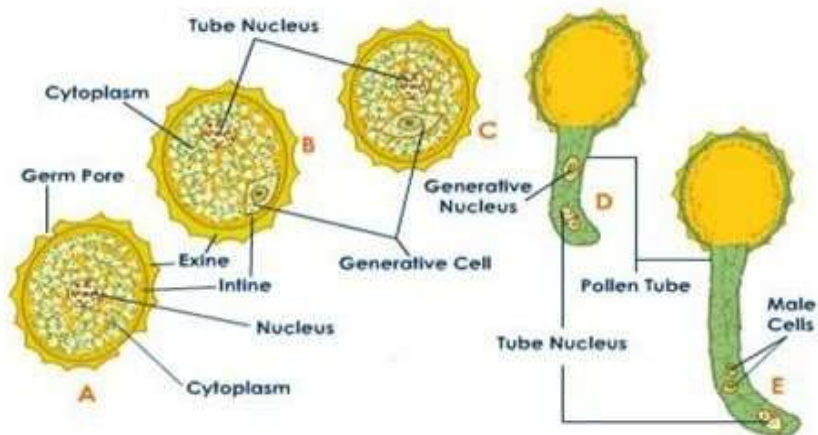
- Wind
- Water
- Animals

- <https://www.youtube.com/watch?v=iE8eMLbuEJs>

FERTILIZATION

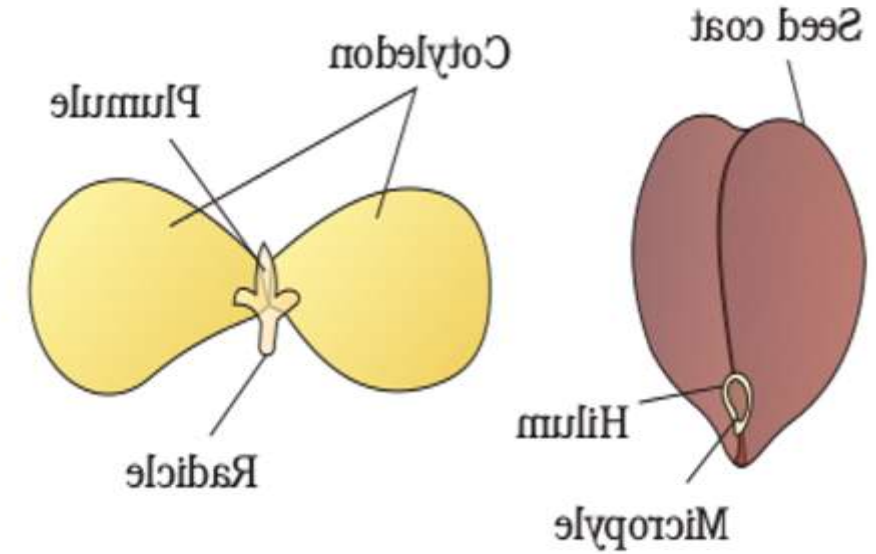
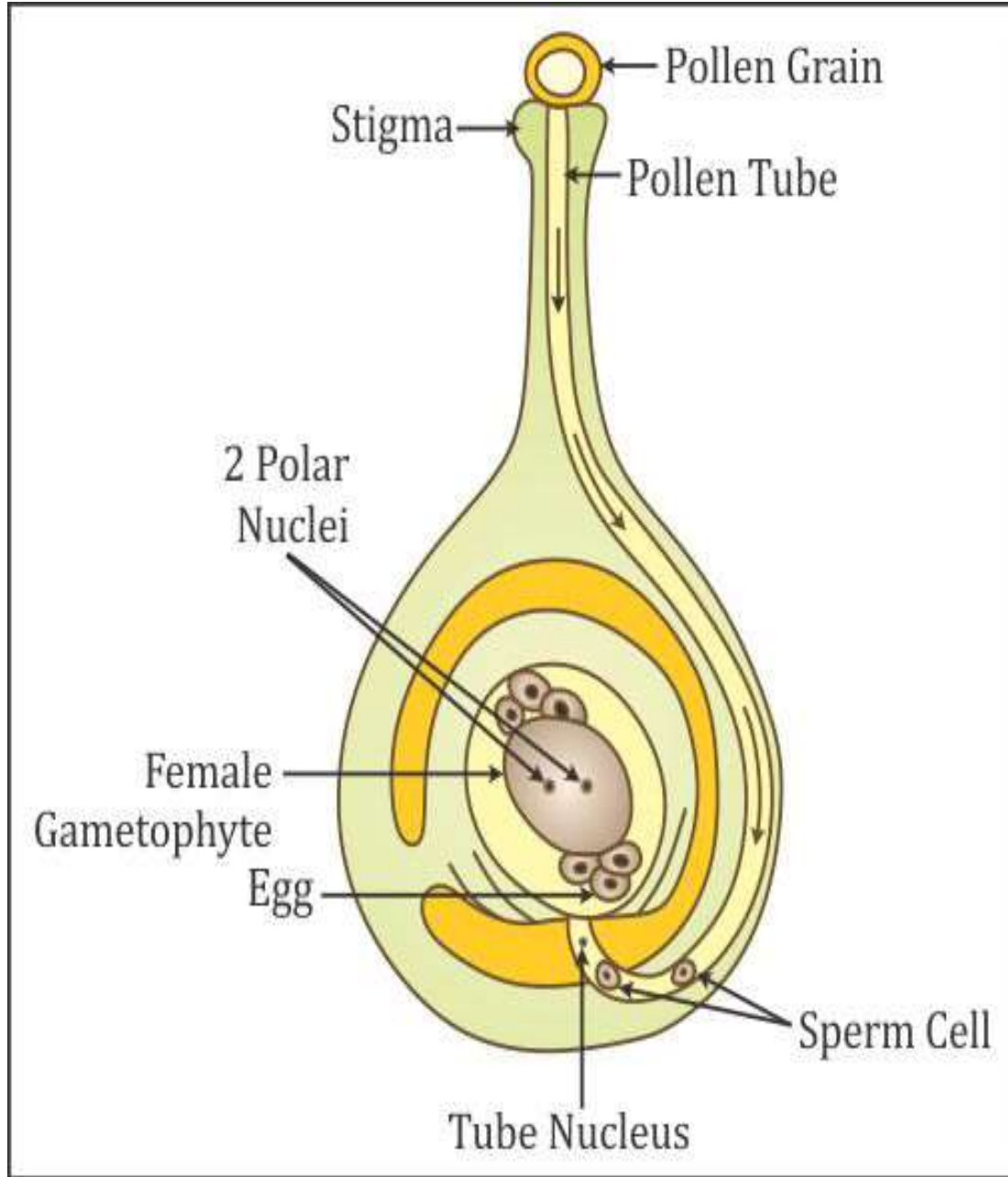
- The fusion of male and female gamete is called fertilisation.
- If pollen grain falls on a suitable stigma, it absorbs water and nutrients, grows a pollen tube
- The pollen grain contains two male gametes

- The pollen tube enters into the embryo sac through micropyle. At this time, the pollen tube bursts open, gametes released from the pollen tube and enter into the embryosac. One of the gametes fuses with the egg, and the other fuses with the secondary nucleus. The fusion of a male gamete with egg is known as fertilization. The fertilized egg is known as zygote which develops into embryo.



DOUBLE FERTILIZATION

- The other male gamete fuses with the secondary nucleus. The secondary nucleus is diploid in nature. The fusion of this nucleus with the second male gamete is known as triple fusion. The triple fusion nucleus is called endosperm nucleus because it develops into endosperm. Endosperm is a nutritive tissue meant for the development of the embryo. The process of fusion of a male gamete with egg and the other gamete with secondary nucleus is known as double fertilization.



Structure of dicotyledonous seed

POST FERTILIZATION CHANGES :

- The ovule develops into seed.
- The integuments of the ovule develop into seed coats
- The ovary enlarges and develops into fruit.

- <https://www.youtube.com/watch?v=dgFY7WUTASQ>

THANKING YOU
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